What is claimed is:

- An apparatus for producing a sample of a mainly finely drained and dry material for defining the residual carbon content thereof by defining a change in at least one electrical parameter, comprising:

 a measuring chamber;
 a screw conveyor connected to the measuring chamber and comprising a rotatable feed screw;
 means for rotating the feed screw for feeding the material to the measuring chamber and for compacting the material therein.
 - 2. The apparatus of claim 1, wherein the measuring chamber and the screw conveyor are positioned in a chamber for collecting the material.
- 15 3. The apparatus of claim 1, wherein the screw conveyor comprises a tubular member for rotatably receiving the feed screw and provided with at least one opening for receiving the material.
- 4. The apparatus of claim 1, further comprising means for monitoring the torque of the rotating feed screw.
 - 5. The apparatus of claim 4, wherein the torque monitoring means comprises means responsive to abrupt increases of the torque for terminating rotation of the feed screw.

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6. A method of producing samples of a mainly finely granulated and dry material for determining the residual carbon content of the material, comprising the steps of: feeding the material at a predetermined force to a measuring chamber for compaction therein;
monitoring the force; and
interrupting the feeding of material at an abrupt increase in the force.

- The method of claim 6, wherein the material is fed to the measuring chamber by a rotating conveyor screw and wherein the force is monitored as a function of the torque of the conveyor screw.
- 8. The method of claim 7, wherein feeding of the material is interrupted at an increase in torque by more than 200 percent.

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